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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,303	07/26/2006	Katsuhiro Takenaga	Q96164	6535

23373 7590 01/08/2010

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EXAMINER
PAJOOHI, TARA S

ART UNIT	PAPER NUMBER
2886	

NOTIFICATION DATE	DELIVERY MODE
01/08/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/587,303	TAKENAGA ET AL.	
	Examiner	Art Unit	
	Tara S. Pajoohi	2886	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 October 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 July 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/26/09 & 10/2/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Acknowledgment is made to the amendment filed 10/2/2009.

2. Claims 1-10 are pending in this application.

3. Objections to the claims and title have been withdrawn.

Information Disclosure Statement

4. Acknowledgement is made that the information disclosure statement filed on 10/2/2009 has been received and considered by the examiner. If the applicant is aware of any prior art or any other co-pending applications not already of record, he/she is reminded of his/her duty under 37 CFR 1.56 to disclose the same.

5. Acknowledgement is made that the information disclosure statement filed on 7/26/2006 has been received and considered by the examiner. If the applicant is aware of any prior art or any other co-pending applications not already of record, he/she is reminded of his/her duty under 37 CFR 1.56 to disclose the same. Also, the DiGiovanni reference has been corrected to identify the proper publication number.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. **Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohira et al. (U.S. Publication No. 2003/0228103) in view of Pepeljugoski et al. ("15.6 Gb/s Transmission Over 1 km of Next Generation Multimode Fiber").**

8. Considering claim 1, Ohira discloses (paragraphs 36-58) a method of measuring a differential mode delay of an optical fiber (i.e., differential group delay of the fiber), comprising: monitoring a temperature ($T_1(x)$) of the optical fiber (8), during a measurement time of the DMD of the optical fiber, measuring a change in temperature of the optical fiber during the measurement time (i.e., measuring the shift in temperature), and controlling the temperature of the optical fiber such that an absolute value of the change of temperature of the optical fiber is maintained within a predetermined range during the measurement time (i.e.., controlling the shift in temperature to be smaller than 2.5° C, paragraph 55).

Ohira fails to specifically disclose the multimode fiber.

However, Pepeljugoski discloses (pg. 717-719) it is well known to test multimode optical fibers over single mode optical fibers when testing the differential mode delay.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to test multimode optical fibers as taught by Pepeljugoski in the method of Ohira, since Pepeljugoski discloses that multimode fibers are favored with respect to single mode fibers since multimode fibers are more easily aligned (pg. 718, col. 1, para. 3).

9. Considering **claims 2 and 3,** the modified method of Ohira discloses (paragraphs 45-55) the temperature change of (±2.5° C) during the measurement of the DMB of the optical fiber is based upon a set time but fails to specifically discloses the predetermined range is calculated such that a product of the measurement time and a rate of temperature change during the measurement of the DMB of the optical fiber is 0.4° C or less (0.3° C or less, claim 3).

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made for the product of the measurement time and a rate of temperature change during the measurement of the DMB of the optical fiber is 0.4° C or 0.3° C or less since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233. It would have been further obvious in order to provide more control in the deterioration of the optical signal characteristics.

10. Considering **claims 4-7 and 9-10,** the modified method of Ohira discloses (paragraphs 45-55) the temperature change of (±2.5° C) during the measurement of the DMB of the optical fiber is based upon a set time but fails to specifically disclose the predetermined range is calculated such that the temperature change of the ambient environment is controlled to ±1.0° C/hour or less (±5.0° C/hour or less, claim 10) and the measurement time is not more than 10 minutes (3 minutes, claim 6) (5 minutes, claim 9).

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made for the predetermined range is calculated such that the temperature change of the ambient environment is controlled to ±1.0° C/hour or ±5.0° C/hour or less and the measurement time is not more than 3, 5 or 10 minutes, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233. It would have been further obvious in order to provide more control in the deterioration of the optical signal characteristics.

11. Considering **claim 8,** the modified method of Ohira fails to specifically disclose prior to the measurement time of the DMD of the optical fiber, placing the optical fiber in a measurement

environment until the temperature of the optical fiber substantially equals a temperature of the measurement environment.

However this would have been well known in the art to calibrate the temperature of the object to be measured before any measurements are performed since it will create a standard of measurement for all future measurements.

Therefore, it would have been further obvious in order to provide more accurate results.

Response to Arguments

12. Applicant's arguments, see pages 3-5, filed 10/2/2009, with respect to the rejection(s) of claim(s) 1-10 under 35 U.S.C. 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Ohira and Pepeljugoski.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tara S. Pajoohi whose telephone number is (571)272-9785. The examiner can normally be reached on Monday - Thursday 9:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur R. Chowdhury can be reached on 571-272-2287. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tara S Pajoohi/

Examiner, Art Unit 2886

/TARIFUR R CHOWDHURY/

Supervisory Patent Examiner, Art Unit 2886